Applicant: Ryosuke Usui et al. Attorney's Docket No.: 14225-035001 / F1030610US00

Serial No.: 10/724,954

Filed: December 1, 2003

Page : 2 of 10

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims**:

1. (Currently amended) A circuit device manufacturing method comprising:

forming separation grooves in a conductive foil from a top surface to form conductive patterns that are integrally connected at the bottom portion of the conductive foil;

mounting <u>a</u> circuit element onto <u>desired location</u> <u>one or more</u> of the conductive patterns; and

sealing with a resin layer so as to cover the circuit element and fill the separation grooves;

wherein plasma is irradiated onto the top surface of the conductive foil.

2. (Currently amended) A circuit device manufacturing method comprising:

forming separation grooves in a conductive foil from a top surface to form conductive patterns that are integrally connected at the bottom portion of the conductive foil;

mounting <u>a</u> circuit element onto <u>desired location</u> <u>one or more</u> of the conductive pattern<u>s</u>; irradiating plasma onto the top surface of the conductive foil, including the circuit element; and

sealing with a resin layer so as to cover the circuit element and fill the separation grooves.

3. (Original) The method of Claim 1, wherein irradiation of the plasma is carried out prior to the step of mounting the circuit element.

Applicant: Ryosuke Usui et al. Attorney's Docket No.: 14225-035001 / F1030610US00

Serial No.: 10/724,954

Filed: December 1, 2003

Page : 3 of 10

4. (Currently amended) The method of Claim 1, wherein irradiation of the plasma is carried out subsequent to the step of mounting the circuit element.

- 5. (Currently amended) The method of Claim 1 or 2, wherein contaminants attached to the surfaces of the separation grooves are removed by the plasma.
- 6. (Original) The method of Claim 5, wherein the contaminants comprise organic or inorganic matter.
- 7. (Original) The method of Claim 1 or 2, wherein the surface of the separation grooves are [[is]] roughened by the plasma irradiation.
- 8. (Original) The method of Claim 1 or 2, wherein the surface of the separation grooves are [[is]] oxidized by the plasma irradiation.
- 9. (Original) The method of Claim 1 or 2, wherein the plasma irradiation is carried out using oxygen gas.
- 10. (Original) The method of Claim 1 or 2, wherein the plasma irradiation is carried out using an inert gas, such as argon, neon, or helium.
- 11. (Original) The method of Claim 1 or 2, wherein the conductive foil is formed of a metal having copper as the principal material.
- 12. (Original) The method of Claim 1 or 2, wherein the circuit element <u>comprises a</u> [[is]] semiconductor element that is electrically connected <u>to one or more of the conductive patterns</u> via metal wires.

Applicant: Ryosuke Usui et al. Attorney's Docket No.: 14225-035001 / F1030610US00

Serial No.: 10/724,954

Filed : December 1, 2003 Page : 4 of 10

13. (Original) The method of Claim 1 or 2, wherein the rear surface of the conductive foil is eliminated until the resin layer is exposed exposes at the rear surface of the conductive foil to electrically separate the respective conductive patterns.

14. (New) The method of claim 1 wherein the separation grooves extend only partially through the conductive foil.